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ABSTRACT

A three-part, state-wide survey was conducted in Spring 1979, to determine employer satisfaction with the vocational programs offered at Hawaii's high schools and community colleges. Three populations were involved in the survey: (1) the personnel directors of 29 firms representing approximately 25% of the businesses in Hawaii with 250 or more employees; (2) the managers of a stratified random sample of smaller businesses proportional to a state employment profile based on the categories used in the Standard Industrial Classification Index; and (3) the coordinators of 15 apprenticeship programs which supplement on-the-job training with instruction at community colleges. Personal interviews were conducted with the personnel managers and the program coordinators, while small business managers were surveyed by mail. The businesses were asked, among other items, to evaluate the personal and occupational abilities of vocational education graduates and to assess the relative ability of employees who had undergone vocational training and those who had not. Apprenticeship coordinators were asked to evaluate the community college component of the apprenticeship programs and to compare these programs with those not having such a component. The survey report summarizes, both textually and graphically, findings for each of the survey populations. (JP)

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EMPLOYER SATISFACTION SURVEY

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JUNE, 1979

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APPENDIX A

EMPLOYER SATISFACTION SURVEY

Introduction

One of the evaluation requirements of current vocational educatic legislation deals with employer satisfaction. States are urged to determine if those employers who hire graduates of publicly supported vocational education programs feel that the performance of these former students is superior to that of persons who have not been enrolled in a vocational education program.

One study of this sort has been conducted by the University of Hawaii Community Colleges in 1977. The summary of findings and conclusions reached by this study are provided in Attachment A.

In the study discussed herein, emphasis was placed on "program" and no reference was made to individual employees. The individual evaluations obtained represent subjective judgements and suffer from all of the limitations of personal perceptions. However, taken in aggregate, they do provide some insight as to how the business community views the adequacy of vocational preparation in the state. It goes without saying that these data should be treated in an appropriately qualified manner.

The study involved a survey of three different populations. These were:

1. Large businesses,
2. Small and medium size businesses, and
3. Training coordinators of apprenticeship programs.

Working on the assumption that it was not logical to compare the perceptions and assessments of a businessman employing 10 persons with one employing several hundred, separate studies were conducted for large and small employers.

The Department of Labor and Industrial Relations organizes businesses in nine different categories in terms of employees. They are as follows:

Number of Employees	Code
0-3	1
4-9	2
10-19	3
20-49	4
50-99	5
100-249	6
250-499	7
500-999	8
1,000+	9

Various reports were perused to ascertain whether there was a logical benchmark that could be used to distinguish between "small" and "moderate" size businesses from those which might be characterized as being "large" in the State of Hawaii. After reviewing the "Statewide Average Covered Workers Report," which rank orders firms and agencies in terms of numbers of employees, a decision was made to treat businesses with 250 or more employees as being "large." One fourth of these firms and agencies were selected for study. Because of the relatively small number in the sample, an interview schedule was used. The interview schedule was designed to cover many of the same items that were included in the small business questionnaire. However, there were several open-ended items which were used to obtain greater in-depth information. Those interviewed were the staff administrators having primary responsibility for personnel and staff development in their respective organizations.

Refer to Attachment B for a copy of the interview schedule utilized.*

Small and Medium Size Businesses

The problem of deriving an appropriate sample of small business was considered to be somewhat formidable. The experience of marketing research firms has shown that small proprietors are disinclined to return questionnaires, particularly if they are lengthy. However, given the logistical problems involved in an island state such as Hawaii and the necessity of a comparatively large sample, the extensive use of interviews was ruled out for this group. To use the Labor Departments records to produce a randomly generated set of mailing labels would also have proved prohibitive in terms of time and cost. It was determined that it would be necessary to make use of a mailing list of at least 1,800 if an adequate response was to be obtained. In order to expediently and economically gain access to a sample of this size, the resources of the Legislative Information Service of Hawaii (LISH) were solicited. This organization graciously offered to include a brief questionnaire in their monthly newsletter. A prepaid return envelope was included. The questionnaire used for this part of the study is depicted in Attachment C. The form was designed to be brief, and was addressed to the information requirements specified in the law. The mailed questionnaires were supplemented with selected visits to some businesses during which the questionnaires were completed. This permitted the stratification of the sample in the manner desired.

Apprenticeships

The third component of this study involved an assessment of community college efforts in the area of "related instruction" which is provided from apprenticeship programs. In the State of Hawaii apprenticeship programs are administered in two different ways.

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* An interview schedule differs from a questionnaire in that the former is read to the respondent and is completed by the interviewer, whereas, a questionnaire is read and completed by the respondent.

The most common is the "joint apprenticeship committee" (JAC) arrangement. This mode of operation is particularly prevalent in the construction industry. The JAC is composed of three representatives from management and three from the union designated as the official collective bargaining agent. The JAC supervises the progression of apprentices through the program. The day-to-day operation of the program is overseen by a training coordinator. In apprenticeship programs, where a JAC is employed, the skills training and on-the-job instruction are supplemented by a program of "related instruction" which is conducted by the community colleges.

About 20% of the apprentices are supervised under "unilateral" arrangements. Such programs are conducted primarily by plantations or businesses which do not have collective bargaining arrangements.* The number of apprentices involved in this type of program is about equally distributed between plantations and small businesses. In such situations no union representation is provided. There tends to be a strong correlation between the unilateral type of arrangement and the absence of a "related instruction" component. The State Department of Labor and Industrial Relations regrets the absence of community college involvement in such programs and is actively seeking ways to overcome this omission in the recommended plan of instruction. However, since community college "related instruction" is omitted from such programs, they are not included in this study.

In order to determine the best method of obtaining feedback on the effectiveness of such instruction, consultations were held with the State Director of Apprenticeship Programs and Apprenticeship Coordinators at the community college having the largest apprenticeship enrollment. In the view of these administrators, accurate and insightful data could be obtained from the coordinators of each of the trade apprenticeship programs. They also felt that interviews might produce more meaningful information with this group than questionnaires. As a consequence, an interview schedule was developed which was interfaced as closely as possible with that used for large businesses. Many of the items were also designed to correspond with those on the questionnaire mailed to smaller business firms.

Refer to Attachment D for a copy of the interview schedule used.

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* While plantations do have collective bargaining arrangements, the unions representing this industry generally decline to participate on the apprenticeship committees.

Findings: Large Businesses Survey

One hundred and six firms in the State of Hawaii were classified as being "large". Using a random table of numbers, 29 firms were selected for inclusion in this year's study. The personnel directors of three firms declined to be interviewed. One of these companies claimed that they had not hired a vocational education product in the last five years, a second reported that the firm hired only unskilled labor below the management level, and the third reported an unwillingness to participate in any further surveys designed to provide information for the federal government. The firms which were surveyed employed approximately 26,312 persons (refer to Chart 1).

The personnel directors who were interviewed proved most cooperative. While it had been anticipated that any given interview would require no more than 30 minutes, in practice many lasted as long as two hours. Many supplementary comments were offered. These are reproduced in Charts 2-5 which appear at the conclusion of the tables for this section.

Service firms were the most heavily represented group in this particular sample. Fifty percent of the firms were in this group (refer to Table 1).

Not surprisingly all firms had offices or operating units in Honolulu (refer to Table 2). Fourteen had operations in the county of Hawaii, 13 in Kauai, and 13 in Maui.

The personnel directors of all but one firm that were interviewed reported that they had some employees that had taken vocational education courses in high school (refer to Table 3). Only one of those interviewed responded "don't know."

The area of training most heavily represented in the vocational training graduates employed directly out of high school was "business" (refer to Table 4). "Mechanical" was mentioned in 11.6% of the firms.

Employers were asked to assess the adequacy of employment preparation in terms of three criteria: 1) "general academic training", 2) "specific occupational skills training", and 3) "general occupational skills training". The assessment could be rated either "good", "fair", or "poor".

If they did not venture an opinion the option "no opinion" was marked. The ratings were generally favorable. Forty-two percent gave the public schools a "good" rating, 34.6% a "fair" and only 7.7% thought the schools were doing a "poor" job in this area (refer to Table 5).

No respondent gave the public schools a "poor" rating in the area of "specific occupational skills training." (Refer to Table 5). Almost 1 in 4 thought the schools were doing a "good" job in this area and half thought the job being done was "fair." In the area of "general

TABLE 1

TYPE OF FIRM

Category of Firm	N	%
Agriculture, fisheries	2	7.7
Construction	1	3.8
Manufacturing	0	0.0
Transportation	3	11.6
Wholesale trade	1	3.8
Retail trade	3	11.6
Finance, insurance, real estate	2	7.7
Service	13	50.0
Other	1	3.8
	26	100.0

TABLE 2

COUNTIES OF HAWAII
WHERE FIRMS OPERATE

County	f
Honolulu	26
Hawaii	14
Kauai	13
Maui	13

TABLE 3

FIRMS WITH EMPLOYEES WHO TOOK
VOCATIONAL EDUCATION COURSES IN HIGH SCHOOL

Response	N	%
Yes	25	96.2
No	0	0
Don't Know	1	3.8
TOTAL	26	100.0

TABLE 4

PROGRAM AREA MOST HEAVILY REPRESENTED
IN PRIOR TRAINING OF NEW EMPLOYEES

Program	N	%
Agriculture	0	0
Business	15	57.8
Construction	1	3.8
Electrical/Electronic	0	0
Food service	1	3.8
Health	0	0
Technical/Graphic	0	0
Mechanical	3	11.6
Personal/Public service	1	3.8
Other	2	7.7
No major area	3	11.5
TOTAL	26	100.0

TABLE 5

ADEQUACY OF EMPLOYMENT PREPARATION
OF HIGH SCHOOL GRADUATES

Criteria	Good		Fair		Poor		No Opinion	
	N	H%	N	H%	N	H%	N	H%
General Academic Training	11	42.3	9	34.6	2	7.7	4	15.4
Specific Occupational Skills Training	6	23.1	13	50.0	0	0	7	26.9
General Occupational Skills Training	8	30.8	11	42.3	0	0	7	26.9

occupational skills training" almost one-third gave the high schools a "good" rating and over 42% felt the schools were doing a "fair" job. No respondent felt they were doing a "poor" job but over 27% registered "no opinion."

The critical question involved a comparison of high school graduates having vocational education training with those who have no such experience. This criterion is suggested as being significant in section 104.402 (c)(4) of the federal regulations. Almost 54% of the personnel managers of large firms felt new employees with vocational education backgrounds were "superior" (refer to Table 6). Nearly 27% rated such former students as being "somewhat better." None of the personnel directors responded to the options "no better" or "not as good as." However, 19.2% of those interviewed stated that they had no opinion on the matter.

Employers were asked to evaluate their new hires who had vocational education in high school against eleven criteria which are frequently used in employment evaluations. A five point Likert scale was used.

Former students of high school vocational courses received very high marks in the area of "punctuality". Over 38% of the employers awarded former high school students with a "five" which is the highest possible rating (refer to Table 7).

The average rating was 4.0 and the mode 5. In the area of "social skills" the average rating was 3.6 and the mode 4. Assessments on the criterion of "personal grooming" varied, understandably by firm. Retail and tourist related industries stated that this was an important consideration in employment evaluation. Construction and trade industries placed less emphasis on this attribute. The average score was 3.1 and the mode 3. For the students employed directly from high school, the lowest average rating was directed at "written communication skills." Here the average score was only 2.8. The mode was 3. Several personnel directors volunteered their opinion that the public schools could make improvements in language arts instruction.

The average rating for "oral communication skills" was somewhat higher at 3.1. The average rating for "safety consciousness" was 3.5 and that for "ability to assume responsibility" the same. "Dependability" got a slightly higher rating of 3.6. The mode, however, was 4. In the area of "adaptability," former students of high school vocational education programs got an average rating of 3.7. They did not fare quite as well in the areas of "problem solving ability" and "motivation" where the average ratings were 3.4 and 3.3 respectively.

Almost 9 out of 10 of the large employers surveyed reported that they had hired employees within the last five years who had attended a community college administered by the University of Hawaii (refer to Table 8). The area most heavily represented in the training of the successful applicants from the community colleges was "business". Almost 47% of the employers canvassed stated that this program was the one most

TABLE 6

COMPARISON OF QUALITY OF
HIGH SCHOOL VOCATIONAL GRADUATES

Rating	N	%
Superior	14	53.9
Somewhat better	7	26.9
No Better	0	0
Not as good as	0	0
No opinion	5	19.2
TOTAL	26	100.0

TABLE 7

GENERAL EVALUATION OF VOCATIONAL EDUCATION

HIGH SCHOOL GRADUATES RECENTLY EMPLOYED*

Criteria	Poor 1		2		3		4		Good 5		No Opinion	Mean	Mode
	N	H%	N	H%	N	H%	N	H%	N	H%			
Punctuality	0	0	0	0	7	33.3	6	28.6	8	38.1	5	4.0	"5"
Social skills	0	0	2	9.5	7	33.3	8	38.1	4	19.1	5	3.6	"4"
Personal grooming	0	0	5	23.8	9	42.9	5	23.8	2	9.5	5	3.1	"3"
Written communication skills	2	9.1	5	22.7	10	45.5	4	18.2	1	4.5	4	2.8	"3"
Oral communication skills	0	0	4	18.2	11	50.0	6	27.3	1	4.5	4	3.1	"3"
Safety consciousness	0	0	1	4.7	9	42.9	9	42.9	2	9.5	5	3.5	"3" "4"
Ability to assume responsibility	0	0	1	4.7	11	52.4	6	28.6	3	14.3	5	3.5	"3"
Dependability	0	0	0	0	9	52.9	10	47.6	2	9.5	5	3.6	"4"
Adaptability	0	0	0	0	9	40.9	9	40.9	4	18.2	4	3.7	"3" "4"
Problem solving ability	0	0	0	0	12	60.0	8	40.0	0	0	6	3.4	"3"
Motivation	0	0	2	10.0	9	45.0	9	45.0	0	0	6	3.3	"3" "4"

*Percentages are adjusted to delete "no opinion" and "non applicable" data.

TABLE 8

EMPLOYEES WITH COMMUNITY COLLEGE
VOCATIONAL EDUCATION BACKGROUNDS

Response	N	%
Yes	23	88.5
No	2	7.7
Don't Know/Non-Applicable	1	3.8
TOTAL	26	100.0

TABLE 9

SUMMARY OF PROGRAMS
TAKEN BY COMMUNITY COLLEGE GRADUATES

Program	N	%
Agriculture	0	0
Business	12	46.3
Construction	1	3.8
Electrical/Electronic	1	3.8
Food service	5	19.3
Health	1	3.8
Technical/Graphic	0	0
Mechanical	2	7.7
Personal/Public service	1	3.8
Other	3	11.5
TOTAL	26	100.0

heavily subscribed by successful applicants having a community college background. (Refer to Table 9). Almost 1 out of 5 had been trained in the "food service" area and 7.7% had enrolled in courses involving "mechanics."

The employers were asked to evaluate their recent community college hires as to their adequacy with reference to four criteria. These were "basic skills," "general academic training," "specific occupational training" and "general occupational training." The ratings used were "good," "fair" and "poor". In the area of basic skills 69.3% said that successful community college applicants were "good" with this regard (refer to Table 10). In the area of general academic training, half rated their community college hires as "good." Over 61% found the training in specific occupational skills as being "good" and almost three-fourths awarded this rating in the area of "general occupational training."

Almost two-thirds of the study population expressed the opinion that the community colleges were doing a "good job" (refer to Table 11). None of the personnel managers contacted gave the community colleges a "poor" rating.

The critical question for the community colleges, as for the secondary schools, involved a comparison of the effectiveness of the former students who had experienced training in a vocational area as opposed to those who had not. Almost 3 out of 4 of the personnel managers from large firms said that community college people with training in a vocational area were "superior" to those without the benefit of such preparation (refer to Table 12). Another 11.5% said that persons with such training were "somewhat better" than those without. No one interviewed expressed the opinion that persons with specific occupational skills training were "no better" or "not as good as" community college products without such training.

The same attributes or characteristics used to evaluate job performance of persons hired directly out of high school were also applied against the new employees having a community college background. Community college students with a vocational education background fared very well. The scale was 1 to 5 with 5 representing the most positive rating. On "punctuality" the mean and mode rating was 4 (refer to Table 13). Former community college students were given a high average rating of 4 on "personal grooming." However, their rating in the area of "written communication skills" was only 3.6 and "oral communication skills" was 3.4. Many of the comments volunteered by personnel directors also indicated concern about the verbal skills of people they had hired over the last five years. Former community college students with a background in vocational education received an average rating of 3.8 on "safety consciousness", 4.0 on "ability to assume responsibility" and 4.0 on "dependability". "Adaptability" and "problem solving ability" also warranted 4.0 average ratings. However, the highest rating of 4.1 was assigned to "motivation."

Almost 90% of the personnel directors of the large firms reported

TABLE 10

ADEQUACY OF EMPLOYMENT PREPARATION
OF COMMUMITY COLLEGE GRADUATES

Criteria	Good		Fair		Poor		No Opinion	
	N	%	N	%	N	%	N	%
Basic skills	18	69.3	3	11.5	0	0	5	19.2
General academic	13	50.0	8	30.8	0	0	5	19.2
Specific occupational	16	61.5	5	19.2	1	3.8	4	15.4
General occupational	19	73.1	4	15.4	0	0	3	11.5

TABLE 11

GENERAL ASSESSMENT FOR THE JOB BEING DONE
BY THE COMMUNITY COLLEGES IN VOCATIONAL EDUCATION

Assessment	N	%
A good job	17	65.4
A fair job	6	23.1
A poor job	0	0
No opinion	3	11.5
TOTAL	26	100.0

TABLE 12

COMPARISON OF QUALITY OF COMMUNITY COLLEGE VOCATIONAL GRADUATES WITH OTHERS

Rating	N	%
Superior	19	73.1
Somewhat better	3	11.5
No better	0	0
Not as good as	0	0
No opinion	4	15.4
TOTAL	26	100.0

TABLE 13

GENERAL EVALUATION OF VOCATIONAL EDUCATION

COMMUNITY COLLEGE GRADUATES RECENTLY EMPLOYED*

Criteria	Poor 1		2		3		4		Good 5		No Opinion	Mean	Mode
	N	H%	N	H%	N	H%	N	H%	N	H%			
Punctuality	0	0	0	0	6	28.6	9	42.8	6	28.6	5	4.0	"4"
Social skills	0	0	0	0	6	27.3	11	50.0	5	22.7	4	3.9	"4"
Personal grooming	0	0	1	4.8	3	14.3	11	52.3	6	28.6	5	4.0	"4"
Written communication skills	0	0	0	0	10	45.5	10	45.5	2	9.0	4	3.6	"3" "4"
Oral communication skills	0	0	3	13.0	7	30.4	12	52.3	1	4.3	3	3.4	"4"
Safety consciousness	0	0	0	0	5	23.8	14	66.7	2	9.5	5	3.8	"4"
Ability to assume responsibility	0	0	0	0	6	25.0	12	50.0	6	25.0	2	4.0	"4"
Dependability	0	0	0	0	4	18.2	12	54.5	6	27.3	5	4.0	"4"
Adaptability	0	0	0	0	3	13.6	14	63.7	5	22.7	4	4.0	"4"
Problem solving ability	0	0	0	0	3	13.0	17	74.0	3	13.0	3	4.0	"4"
Motivation	0	0	0	0	2	8.7	16	69.6	5	21.7	3	4.1	"4"

*Percentages are adjusted to delete "no opinion" and "non applicable" data.

that vocational education students "make better employees" than those without vocational education training (refer to Table 14). Over three out of four personnel directors stated that graduates of the Department of Education make "good employees" and 88.5% expressed a similar opinion of community college products (refer to Table 15 and 16).

Findings: Small Business Survey

Because of the reluctance of many small businesses to return questionnaires it was decided to use a stratified random sample instead of a simple random sample. A stratified random sample is different from a quota sample in that once the desired percentage relationships by criterion and category have been determined the selection within each group takes place at random. And unlike a quota sample system, this technique is classified by statisticians as being one of the "probability sampling techniques."

The criterion selected for use in stratifying the sample was the state employment profile as reflected by the categories used in the Standard Industrial Classification Index. Other criteria were considered but that selected was adjudged the most relevant given the data available. The actual state profile was obtained from the most recent data reported in the Department of Labor's ES-202 Report.

The resulting sample varied by less than a percentage point in 8 of the 9 categories. It varied by about 2% on the 9th (refer to Table 17).

The number of firms, by category, which completed the questionnaire is depicted in Table 18. The most heavily represented type of business in the survey was "service", with 29.5% of the total. Retail trade was second with 22.4% of the total.

To get some idea of the geographic distribution of those reporting data, the firms were asked to designate those counties in which they maintained offices and/or permanent operating units. Some of the respondents reported that they had operations in more than one county, so the total number of sites reported is greater than the sample size itself. Understandably, the county of Honolulu was the most frequently reported location (refer to Table 19).

The greatest number of businesses were reported as having no more than five employees (refer to Table 20). Almost a third fell into this category. Thirteen percent had between 6-9, 23.3% had between 10-24, and 21.2% had 25 or more.

Over two-thirds of the firms canvassed claimed to have employees who had taken vocational education courses in high school (refer to Table 21). However, one half said this involved 5 or fewer employees (refer to Table 22). The fields of training most frequently reported were "mechanical" and "business." Small businesses were asked to report all fields of training represented in their work force, and some listed two or more (refer to Table 23).

TABLE 14

DO VOCATIONAL EDUCATION STUDENTS MAKE BETTER EMPLOYEES THAN THOSE WITHOUT VOCATIONAL EDUCATION

Response	N	%
Yes	23	88.5
No	0	0
No opinion	3	11.5
TOTAL	26	100.0

TABLE 15

DO DEPARTMENT OF EDUCATION GRADUATES MAKE GOOD EMPLOYEES

Response	N	%
Yes	20	76.9
No	0	0
No opinion	6	23.1
TOTAL	26	100.0

TABLE 16

DO COMMUNITY COLLEGE GRADUATES MAKE GOOD EMPLOYEES

Response	N	%
Yes	23	88.5
No	0	0
No opinion	3	11.5
TOTAL	26	100.0

TABLE 17

A COMPARISON OF THE SMALL BUSINESS SAMPLE
WITH THE STATE EMPLOYMENT PROFILE IN TERMS OF
THE STANDARD INDUSTRY CLASSIFICATION

Type of Business	% of Firms Sampled in Each SIC Classification	State-Wide Employment As A % of Total*
agriculture, fisheries	3.4	3.7
construction	6.2	6.5
manufacturing	7.5	7.8
transportation	6.2	6.8
wholesale trade	8.2	6.1
retail trade	27.4	27.9
finance, insurance, real estate	8.7	8.5
service	29.5	29.5
other	2.7	3.2
TOTAL	100.0	100.0

*Source Department of Labor Report ES-202. Excludes government employees and is extrapolated from the most current monthly data available at the time of the survey.

TABLE 18

SUMMARY OF SMALL BUSINESSES
BY STANDARD INDUSTRIAL CLASSIFICATION

Type of Business	N	%
agriculture, fisheries	5	3.4
construction	9	6.2
manufacturing	11	7.5
transportation	9	6.2
wholesale trade	12	8.2
retail trade	40	27.4
finance, insurance, real estate	13	8.7
service	43	29.5
other	4	2.7
TOTAL	146	100.0

TABLE 19

SUMMARY OF SMALL BUSINESSES
BY COUNTIES WHERE OPERATIONS ARE MAINTAINED

County	f
Honolulu	118
Hawaii	16
Kauai	12
Maui	11
No Response	1

TABLE 20

NUMBER OF PERSONS
EMPLOYED BY THE SMALL BUSINESSES

Number	N	%
5 or less	47	32.2
6 - 9	19	13.0
10 - 24	34	23.3
25 +	31	21.2
No response	15	10.3
TOTAL	146	100.0

TABLE 21

SMALL BUSINESSES HAVING EMPLOYEES
WHO TOOK VOCATIONAL EDUCATION IN HIGH SCHOOL

Response	N	%
Yes, have such employees	94	64.4
No, have none	31	21.2
Don't know	21	14.4
TOTAL	146	100.0

TABLE 22

SUMMARY OF THE APPROXIMATE NUMBER OF PERSONS EMPLOYED BY SMALL BUSINESSES HAVING A HIGH SCHOOL VOCATIONAL EDUCATION BACKGROUND

Number Employed	N	%
5 or less	74	50.7
6 - 9	9	6.2
10 - 24	8	5.5
25 or more	3	2.1
No response	52	35.5
TOTAL	146	100.0

TABLE 23

AREAS IN WHICH EMPLOYEES OF SMALL BUSINESSES WERE TRAINED IN HIGH SCHOOL*

Area of Training	f
agriculture	4
business	38
construction	5
electrical/electronic	12
food service	2
health	1
technical/graphic	8
mechanical	42
personal/public service	4
other	3
non-applicable	52

*Non-interval data, multiple responses from a single firm possible.

Owners and/or managers of small businesses were also asked to assess the adequacy of the job being done by the Department of Education with vocational students in terms of four performance criteria. The criteria selected were derived from previous, similar studies. The businessmen could award ratings of "good", "fair", "poor" or register "no opinion".

The first item involved "broad educational background" and is not directly related to vocational education. It should be noted that some respondents volunteered an assessment even when reporting that they had no employees with high school, vocational education training.

When those who didn't respond to this item or who registered "no opinion" were deleted it was observed more than 1 in 5 of the small businesses contacted thought the DOE was doing a "good job" and about half thought their present effort merited a "fair" rating (refer to Table 24).

The second item "verbal skills" was also only indirectly related to vocational education. However, it should be noted that most skilled occupations and trades positions do require some skill in the area of written and oral communication. The DOE fared less well on this particular item than any other. When the "no opinion" and the "no responses" were deleted, it was observed that over 40% of the small business respondents gave the DOE a "poor" rating (refer to Table 25). Somewhat over 46% thought the job being done in this area was "fair" and only 12.7% said the job being done was "good".

The last two items were those which had the most direct bearing on vocational education. The DOE received its most favorable ratings on "specific work skills related to training program taken." Here 36.6% of the respondents termed DOE's performance as "good" and 53.5% provided a "fair rating (refer to Table 26). Only 9.9% of those expressing an opinion thought that the job being done was "poor".

The DOE did almost as well in the area of "general work skills". Here 30.7% gave the DOE a "good" rating and 54.4% saw it as being at least "fair" (refer to Table 27). Only about 14% felt the preparation in this area warranted a "poor" rating.

The critical question, in the small business survey as in that for large firms, involved a comparison of employees having a vocational education background with those who did not have such a background. The results were very favorable for those with a vocational education background. Forty percent of the respondents stated that all other things being equal, employees with high school, vocational education training were "superior" (refer to Table 28). Another 37.4% ventured the view that such employees were "somewhat better." Only 20.9% felt that they were "no better than" other high school graduates and 1.7% said they were "not as good as".

TABLE 24

SMALL BUSINESSES' SATISFACTION WITH THE JOB BEING DONE BY THE DEPARTMENT OF EDUCATION IN THE AREA OF "BROAD EDUCATIONAL BACKGROUND"

Rating	N	Relative %	Adjusted %
Good	26	17.8	22.0
Fair	60	41.1	50.9
Poor	32	21.9	27.1
No opinion	8	5.5	--
No response	20	13.7	--
TOTAL	146	100.0	100.0

TABLE 25

SMALL BUSINESSES' SATISFACTION WITH THE JOB BEING DONE BY THE DEPARTMENT OF EDUCATION IN THE AREA OF "VERBAL SKILLS"

Rating	N	Relative %	Adjusted %
Good	15	10.3	12.7
Fair	55	37.7	46.6
Poor	48	32.8	40.7
No opinion	8	5.5	--
No response	20	13.7	--
TOTAL	146	100.0	100.0

TABLE 26

SMALL BUSINESSES' SATISFACTION WITH THE JOB BEING DONE BY THE DEPARTMENT OF EDUCATION IN THE AREA OF "SPECIFIC WORK SKILLS RELATED TO TRAINING PROGRAM TAKEN"

Rating	N	Relative %	Adjusted %
Good	37	25.4	36.6
Fair	54	37.0	53.5
Poor	10	6.8	9.9
No opinion	24	16.4	--
No response	21	14.4	--
TOTAL	146	100.0	100.0

TABLE 27

SMALL BUSINESSES' SATISFACTION WITH THE JOB BEING DONE BY THE DEPARTMENT OF EDUCATION IN THE AREA OF "GENERAL WORK SKILLS"

Rating	N	Relative %	Adjusted %
Good	35	24.0	30.7
Fair	62	42.5	54.4
Poor	17	11.6	14.9
No opinion	12	8.2	--
No response	20	13.7	--
TOTAL	146	100.0	100.0

TABLE 28

SMALL BUSINESSES' ASSESSMENT OF HIGH SCHOOL STUDENTS WITH VOCATIONAL EDUCATION BACKGROUNDS, AS OPPOSED TO THOSE WHO DON'T HAVE SUCH TRAINING

Opinion	N	Relative %	Adjusted %
Superior	46	31.5	40.0
Somewhat better	43	29.5	37.4
No better than	24	16.4	20.9
Not as good as	2	1.4	1.7
No response	31	21.2	--
TOTAL	146	100.0	100.0

TABLE 29

SMALL BUSINESSES HAVING EMPLOYEES WITH VOCATIONAL EDUCATION TRAINING IN COMMUNITY COLLEGE

Response	N	Relative %	Adjusted %
Yes	83	56.9	57.3
No	45	30.8	31.0
Don't know	17	11.6	11.7
No response	1	.7	--
TOTAL	146	100.0	100.0

Fifty-seven percent of those replying reported they had employees on their staff who had vocational education training in a community college within the last 5 years (refer to Table 29). Thirty-one percent had no such employees, and another 11.7% reported they didn't know. Of those reporting the presence of employees with a community college, vocational education background, 86.8% indicated that they had no more than 5 such people (refer to Table 31). Slightly over 8% had between 5 and 9, 3.6% had 10-24 and 1.2% 25 or more.

"Business" and "mechanical" were the largest fields of training represented for the group in question (refer to Table 32). "Electrical/ electronics" and "construction" were the next two most heavily represented fields.

The community colleges were evaluated against 5 criteria in terms of the experience of the small businessmen with former students. Once again, an occasional employer expressed an opinion even if he or she had reported no persons with a community college vocational education background in their employ. However, he or she occasionally chose to evaluate the performance of the colleges in terms of other personal exposure to the programs.

When those registering "no opinion" or failing to respond to the item were deleted, it was found that 38.2% of the sample believed the community colleges deserved a "good" rating in the area of "basic skills" (refer to Table 33). About 48% gave them a "fair" rating and only 13.5% felt the job being done by the colleges was "poor". This positive rating is important in that vocational monies have been used on occasion to support the growth of developmental education programs.

Owners and/or managers of small businesses were also asked to rate the products of community college vocational education programs in terms of the adequacy of training in the area of "broad educational background". Of those offering an opinion 30.2% said that the job being done was "good" (refer to Table 34). Another 57.0% term the job "fair". Only 12.8% believed the job being done was "poor".

Vocational students from community colleges were assessed as being the least adequately prepared in the area of "verbal skills". About 1 in 5 thought the job being done by the community colleges was "good", but half thought it "fair" and 29.9% rated it as being "poor" (refer to Table 35).

The highest overall ratings were awarded in the highly relevant area "specific work skills related to the training program taken." A majority, 52.3%, rated the job being done by the community colleges in this area as being "good" (refer to Table 36). Another 41.9% felt the products of community colleges who had received vocational education training were "fair". Only 5.8% felt the programs were "poor". Those who gave a "poor" rating on this particular item tended to give negative ratings and responses to all items.

TABLE 30

PERCENTAGE OF SMALL BUSINESSES HAVING EMPLOYEES WITH VOCATIONAL EDUCATION BACKGROUNDS THAT COMPLETED A PROGRAM AT A COMMUNITY COLLEGE

Response	N	Relative %
Earned a Degree or Certificate	33	39.8
Attended	40	48.2
Don't know	10	12.0
TOTAL	83	100.0

TABLE 31

NUMBER OF SMALL BUSINESS EMPLOYEES WHO TOOK VOCATIONAL EDUCATION COURSES IN COMMUNITY COLLEGE

Grouping	N	Relative %	Adjusted %
5 or less	72	49.3	86.8
more than 5, but less than 10	7	4.8	8.4
more than 10, but less than 25	3	2.1	3.6
25 or more	1	.7	1.2
No response	63	43.1	--
TOTAL	146	100.0	100.0

TABLE 32

AREAS IN WHICH SMALL BUSINESS EMPLOYEES WERE TRAINED IN THE COMMUNITY COLLEGES*

Area of Training	f
agriculture	1
business	38
construction	11
electrical/electronics	12
food service	5
health	0
technical	8
graphics	5
mechanical	30
personal/public service	4
other	5
no response	63

*Small businesses were asked to report as many areas as were represented in the training of their employees. As a consequence the total number of responses is greater than the sample size.

TABLE 33

SMALL BUSINESSES' SATISFACTION WITH THE JOB BEING DONE BY THE COMMUNITY COLLEGES IN THE AREA OF "BASIC SKILLS"

Rating	N	Relative %	Adjusted %
Good	34	23.3	38.2
Fair	43	29.5	48.3
Poor	12	8.2	13.5
No opinion	9	6.2	--
No response	48	32.8	--
TOTAL	146	100.0	100.0

TABLE 34

SMALL BUSINESSES' SATISFACTION WITH THE JOB BEING DONE BY THE COMMUNITY COLLEGES IN THE AREA OF "BROAD EDUCATIONAL BACKGROUND"

Rating	N	Relative %	Adjusted %
Good	26	17.8	30.2
Fair	49	33.6	57.0
Poor	11	7.6	12.8
No opinion	13	8.9	--
No response	47	32.2	--
TOTAL	146	100.0	100.0

TABLE 35

SMALL BUSINESSES' SATISFACTION WITH THE JOB BEING DONE BY THE COMMUNITY COLLEGES IN THE AREA OF "VERBAL SKILLS"

Rating	N	Relative %	Adjusted %
Good	18	12.3	20.9
Fair	43	29.5	50.0
Poor	25	17.1	29.1
No opinion	9	6.2	--
No response	51	34.9	--
TOTAL	146	100.0	100.0

TABLE 36

SMALL BUSINESSES' SATISFACTION WITH THE JOB BEING DONE BY THE COMMUNITY COLLEGES IN THE AREA OF "SPECIFIC WORK SKILLS RELATED TO THE TRAINING PROGRAM TAKEN"

Rating	N	Relative %	Adjusted %
Good	45	30.8	52.3
Fair	36	24.7	41.9
Poor	5	3.4	5.8
No opinion	12	8.2	--
No response	48	32.9	--
TOTAL	146	100.0	100.0

Vocational education also fared well in the area "general work skills". Almost 49% gave the community college vocational education program a "good" rating (refer to Table 37). About 42% felt the job being done was "fair". Only 8.9% awarded a "poor" rating.

The critical question with regard to the community colleges, as with the high school programs, involved the expression of an opinion as to whether an educational experience which involved vocational education courses made prospective job applicants more attractive to employers. Forty-seven percent reported that students with vocational education training, all other things being equal, would generally be considered "superior" to those without (refer to Table 38). Forty percent said that employees with such training were "somewhat better" than those without vocational training. Only 13% said they were "no better than" those without a vocational education background and no respondent ventured the opinion that they were "not as good as" those without a vocational education background. Clearly those responsible for the operation of large and small operations value vocational education in the preservice training of prospective employees.

Findings: Apprenticeship Survey

As previously mentioned the apprenticeship program, which has a vocational education component, was considered sufficiently unique to deserve some special attention. The apprenticeship training coordinators of fifteen of the existing programs were interviewed. The purpose of this particular survey was to determine their satisfaction with the community college sponsored "related instruction" component of the program.

The trades represented in the survey are listed in Table 39. As the reader will note, those trade and skill areas associated with the construction industry are the most heavily represented.

Four apprenticeship trade areas studied had programs in all of Hawaii's counties. These were "carpenter", "electrical", "glazier", and "plumbing" (refer to Table 40). Most of the apprenticeship training coordinators reported that all trainees in their program were enrolled in "related instruction" components. Only 13.3% reported that related instruction was not an integral component of their training regimen (refer to Table 41).

All but one of the coordinators felt that the related instruction component enhanced the quality of the program. Many were emphatic on this point. The comments in general stressed the following points:

1. Related instruction satisfies the needs to understand what you are doing as well as being able to do it.

2. Classroom instruction complements the "productivity" oriented, on-the-job training experience with a systematic explanation of techniques.

TABLE 37

SMALL BUSINESSES' SATISFACTION WITH THE JOB BEING DONE BY THE COMMUNITY COLLEGES IN THE AREA OF "GENERAL WORK SKILLS"

Rating	N	Relative %	Adjusted %
Good	44	30.1	48.9
Fair	38	26.0	42.2
Poor	8	5.5	8.9
No opinion	8	5.5	--
No response	48	32.9	--
TOTAL	146	100.0	100.0

TABLE 38

SMALL BUSINESSES' ASSESSMENT OF COMMUNITY COLLEGE STUDENTS WITH VOCATIONAL EDUCATION BACKGROUNDS AS OPPOSED TO THOSE WHO DON'T HAVE SUCH TRAINING

Rating	N	Relative %	Adjusted %
Superior	47	32.2	47.0
Somewhat better	40	27.4	40.0
No better than	13	8.9	13.0
Not as good as	0	0.0	0.0
No response	46	31.5	--
TOTAL	146	100.0	100.0

TABLE 39

TRADE ORGANIZATIONS
PARTICIPATING IN THE APPRENTICESHIP SURVEY

Trade
Asbestos
Carpenters
Civil Service
Cooks
Electrical
Floor Layers
Glaziers
Iron Workers
Lathers
Masons
Engineers
Painters
Plumbing
Roofers
Sheetmetal

TABLE 40

COUNTIES WHERE
APPRENTICESHIP PROGRAMS EXIST

Program	Honolulu	Hawaii	Kauai	Maui
Asbestos	X			
Carpenter	X	X	X	X
Civil Service	X			
Cooks	X			
Electrical	X	X	X	X
Floor Layers	X			
Glaziers	X	X	X	X
Ironworkers	X			X
Lathers	X			
Masons	X			X
Engineers	X			X
Painters	X			X
Plumbing	X	X	X	X
Roofing	X			
Sheet Metal	X	X		X

TABLE 41

INCIDENCE OF "RELATED INSTRUCTION" COMPONENT
IN APPRENTICESHIP PROGRAMS

Status	N	%
Have Related	13	86.7
Don't Have	2	13.3
TOTAL	15	100.0

TABLE 42

DOES "RELATED INSTRUCTION" COMPONENT
ENHANCE PROGRAM QUALITY

Response	N	%
Yes	14	93.3
No		
No Opinion	1	6.7
TOTAL	15	100.0

3. Conceptual learning complements practical instruction.

All of the comments volunteered are provided in Charts 6 and 7.

All but one of the Apprenticeship Training Coordinators expressed the opinion that the vocational education related instruction component enhanced the total training effort (refer to Table 42).

The community colleges received "good" ratings for their efforts in the area of vocational education "as a whole". Seventy-three percent gave them a "good" rating and twenty percent a "fair" rating (refer to Table 43). No coordinator assessed the overall performance of the colleges as being "poor". When the focus was directed specifically on the community colleges' performance in the area of supporting related instruction, the general response was also generally favorable. Forty percent thought the community colleges were doing a "good" job in this area (refer to Table 44). Another 46.7% thought the colleges were doing a "fair" job, and only 13.3% thought their performance was "poor".

In order to obtain a better and more precise understanding of the assessment regarding the related instruction component of apprenticeship, respondents were asked to rate the effectiveness of the program provided in their area with reference to six criteria. The coordinators were about evenly divided in their appraisal of the colleges' effectiveness in providing apprentices with an "orientation to the world of work" (refer to Table 45). Forty percent gave the community college program a "good" rating and 46.7% a "fair" evalution. Thirteen percent felt the job being done in this area was "poor".

In terms of serving the needs of the economically and academically disadvantaged, 40% said the job being done was "good", 33.3% felt it was "fair", 20% gave a "poor" rating, and one coordinator had "no opinion" on this matter. Most coordinators were rather candid in their assessment of the present efforts to compensate for student handicaps. Most reported that the nature of their particular trade or craft was such that they could not and/or did not indenture persons with physical handicaps. Others reported that no special provisions were made in the programs for persons with disabilities. There was considerable variance by trade in the area of sex stereotyping. Most thought they, in conjunction with the community college supported related instruction program, were doing a "fair" job. Three said they were doing a "good" job and cited statistics to support their opinion. However, two acknowledged that the record to date in their particular trade was "poor". The ratings in the areas of career planning providing were about evenly divided between "good" and "fair". The apprenticeship coordinators reported having indentured immigrants who had difficulty reading English but thought the high motivation of this group was a compensating factor in their learning. Many immigrant apprentices have voluntarily enrolled in developmental education courses.

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* It should be noted that the various trades are presently requesting that all applicants "Describe any physical disability or illness which may interfere with ... job duties." No attempt is made to discriminate arbitrarily against handicapped persons.

TABLE 43

IN TERMS OF VOCATIONAL EDUCATION AS A WHOLE, WHAT KIND OF A JOB ARE COMMUNITY COLLEGES DOING

Assessment	N	%
Good Job	11	73.3
Fair Job	3	20.0
Poor Job	0	0.0
No Opinion	1	6.7
TOTAL	15	100.0

TABLE 44

RELATIVE TO "RELATED INSTRUCTION", WHAT KIND OF A JOB ARE COMMUNITY COLLEGES DOING

Assessment	N	%
Good Job	6	40.0
Fair Job	7	46.7
Poor Job	2	13.3
No Opinion	0	0.0
TOTAL	15	100.0

TABLE 45

RATINGS GIVEN TO COMMUNITY COLLEGES
IN TERMS OF SELECTED CRITERIA

Criteria	Good		Fair		Poor		No Opinion	
	N	H %	N	H %	N	H %	N	H %
Orientation to the World of Work	6	40.0	7	46.7	2	13.3	0	0.0
Disadvantaged	6	40.0	5	33.3	3	20.0	1	6.7
Handicapped	1	6.7	4	26.7	4	26.7	6	40.0
Overcoming Sex Stereotyping	3	20.0	9	60.0	2	13.3	1	6.7
Career Planning	5	33.3	7	46.7	1	6.7	2	13.3
Students with Limited English-Speaking Ability	4	26.7	6	40.0	2	13.3	3	20.0

TABLE 46

ARE APPRENTICESHIP PROGRAMS WITH "RELATED INSTRUCTION"
COMPONENTS SUPERIOR TO THOSE WITHOUT

Response	N	%
Yes	15	100.0
No	0	0.0
No Opinion	0	0.0
TOTAL	15	100.0

The last question asked the coordinators was, "Are apprenticeship programs with related instruction components superior to those without?" All of those questioned, even those administering programs where such a component is not required, responded in the affirmative.

The data, in general, would tend to suggest that those charged with the responsibility for overseeing the apprenticeship programs feel that the vocational education component, as manifest in "related instruction", is useful and successful.

CHART I
SUMMARY OF LARGE
FIRMS STUDIED IN TERMS
OF AVERAGE MONTHLY NUMBER
OF EMPLOYEES

Firms in the Order in Which They Were Interviewed

	2,303
	315
	1,334
	2,548
	461
	350
	669
	280
	436
	498
	271
	1,007
	523
	4,172
	291
	403
	289
	586
	1,249
	338
	1,823
	4,286
	302
	409
	547
	622
Total	26,312

$\overline{X}$ = 1,012

CHART 2

FAVORABLE COMMENTS VOLUNTEERED
BY PERSONNEL DIRECTORS OF LARGE FIRMS
REGARDING THE DEPARTMENT OF EDUCATION PROGRAM

* vocational education is the strongest part of the DOE's program.
* community colleges can provide the skilled people we need.
* American born have little difficulty...some problems teaching proper business protocol to immigrants.
* Kahuku program pretty good.
* students with vocational education background require less on-the-job training.
* on-the-job and hands-on type programs are very good for many students.
* work experience when combined with theoretical course work produces a more mature individual.
* the world of work in Hawaii is very cosmopolitan...the public schools do a good job of making students aware of cultural differences and stressing the necessity for tolerance...this makes better employees.
* schools do a good job in business training.
* more students should take business courses.
* we value applicants with a basic grounding in business techniques and skills.

CHART 3
POSITIVE CRITICISM VOLUNTEERED
BY PERSONNEL DIRECTORS OF LARGE FIRMS
REGARDING THE DEPARTMENT OF EDUCATION PROGRAM

* students don't have the necessary self-discipline.
* schools are too permissive.
* need more intensive training in basic skills such as reading comprehension and spelling.
* many can't complete the application.
* students need courses in how to apply for a job.
* no real problems.
* written communication skills need to be improved.
* schools not teaching communication skills adequately...new employees have trouble completing incident reports.
* students don't know how to apply for work.
* experience with Junior Achievement clearly indicates that the schools are not teaching the basic facts about the economic system.
* need to have higher standards in school.
* need improved standards...also a curriculum with more basics and less electives.
* too lax...need better reinforcement of social norms...foreign language training of little use.
* need more competency based instruction.
* attitude of general education teachers is poor.
* a good general education background for distributive education students is essential.
* counseling could be improved...many applicants don't have any clear idea of what they want to do in terms of an occupation.
* teachers should be more familiar with the realities of the business world.
* English skills both written and oral are poor.
* pidgin may be culturally chic but it is unsuited for business communication.

CHART 3
(continued)

* need to stress basic skills...the 3 "Rs".
* need a more balanced education...standards should be raised.
* students don't know how to apply for a job.
* more work in career guidance needed.

CHART 4
FAVORABLE COMMENTS VOLUNTEERED
BY PERSONNEL DIRECTORS OF LARGE FIRMS
REGARDING THE COMMUNITY COLLEGE PROGRAM

* producing students who have practical work experience.
* last few community college graduates have been excellent.
* food service trainees fair...those in accounting good.
* apprenticeship people are very good.
* encouraging people to improve their skills.
* compensating for deficiencies in high school preparation
* vocational education provides hands-on experience.
* good general training...provides good services to the community.
* facilitate the acquisition of work skills.
* providing good skills training.
* Kapiolani food service program is very good.
* community colleges actively seek out the concerns and needs of the business community.
* hire most of our food service people from Kapiolani...good people they usually graduate to the ranks of food and beverage managers.
* vocational nurses trained by the community colleges are more dependable than RNs trained at the Manoa campus.
* graduates from Honolulu and Kapiolani make excellent employees.
* people with community college experience progress more quickly than those who don't.

CHART 5
POSITIVE CRITICISM VOLUNTEERED
BY PERSONNEL DIRECTORS OF LARGE FIRMS
REGARDING THE COMMUNITY COLLEGE PROGRAM

* need to use advisory councils more.
* our firm has spent a good deal of time and energy on the advisory councils and would like to see results.
* need to get more women in the mechanical area.
* meeting most job skill needs.
* however, we need more secretaries.
* need to improve ability of students to write.
* need the focus on the basics.
* standards too low...too much like high school.
* standards should be higher.
* students don't know how to apply for a job.
* duplication of effort in the food service program at Leeward.
* need to make better use of advisory councils.
* poor oral communication skills.
* skilled technicians have trouble communicating with public.

CHART 6

Favorable Comments
Volunteered About the Community College Apprenticeship Program

* have to have related instruction component.
* wouldn't change the related instruction component...if anything, would add to it.
* community college component provides the knowledge and some skills instruction.
* instructors are experienced...they understand what the job requires... they communicate well with students.
* the community college course work provides a nice balance between the conceptual and practical.
* the community colleges are making every effort to accomodate the apprentices in their scheduling.
* what apprentices don't learn on the job, they learn in class.
* Hawaii is a state where the relationship between the community colleges and vocational education is uncommonly good.
* the work attitude of the apprentice is improved through exposure to the related instruction...attitude is the key.
* on-the-job training is compromised by the emphasis on productivity... related instruction fills the gap.
* students in the program develop a sense of self-discipline...they become more responsible.
* related instruction provides students with necessary math, communication skills, theory of cost control, sanitation.
* some related instruction is essential...practical experience must be incorporated within the framework of theory.
* the community college experience provides the theory.
* you need the community college component because foremen don't provide an explanation of what is being done on the job...they are mainly interested in production.
* the community colleges have attempted to satisfy our needs in the area of facilities.

CHART 6
(continued)

* related instruction ties directly to on-the-job skills training.
* we're generally satisfied with the program as how operated.
* students need math and descriptive geometry...related instruction provides this.
* the advisory committee is a real attribute
* U of H provides the most current materials.
* we're very satisfied with the existing relationship.
* the effectiveness of related instruction is dependent upon the attitude of apprentices.
* HCC liaison people are very helpful.
* when a man knows "why" he's performing a given task, he does a better job of it.
* related instruction adds an essential ingredient.
* our relationship with HCC is exemplary.
* the college has provided ideal instructional facilities for our program.
* there are some indications that the community colleges may begin to duplicate some of our efforts...this would be wasteful.

CHART 7

Positive Criticism
Offered Regarding the Community College Apprenticeship Program

* many apprentices are just going through the motions in their classroom sessions.
* facilities provided by the college are too small.
* equipment used for instruction is dated...not comparable to that being used in industry.
* special classes for the handicapped are needed.
* poor communication on the part of the community colleges has led our trustees to contemplate construction of our own physical facilities.
* apprenticeship programs need to be represented on the Manpower Commission.
* need to improve instruction in blueprint reading.
* need to use more visual aids in instruction.
* classrooms are too small.
* some companies don't rotate the apprentices to different jobs.
* the related instruction classes should be more practical.
* need better English language instruction.
* the college needs to provide new equipment for "air balancing"
* some apprentices just "go through the motions" in the related instruction component.
* the shops at the community college need an adjacent classroom for lectures...it's hard to deliver a lecture in a shop.
* whatever we've asked from the community college we've gotten.

E. Summary and Conclusion

1. Summary of Major Findings

a. Return rates for:

(1) graduates furnishing employer identification: 29%

(2) employers completing questionnaries: 79% (covering 82% of the graduates who furnished employer identification)

b. Profile of graduates for whom employers' questionnaires were completed (based on a plurality of responses):

(1) personal characteristics: male, over 29 years of age

(2) academic characteristics: business major, A.S. recipient, grade point average of 2.0-2.9

(3) employment characteristics: worker in service occupations, for private industry, on Oahu, earning annually $10,000-$14,999

(4) other characteristics: job/career plans probably related; job/course work very relevant.

c. Profile of employer, based on plurality of responses: has fewer than 25 employees and doesn't know how many community college graduates he has in his employ.

d. Employers' Evaluations:

(1) Overall impression of community college efforts: "good" (47 percent); "satisfactory" (31 percent).

(2) Factor analysis of the 18 specific items on which employers rated community college preparation of graduates revealed one dominant factor: personal attributes of the graduate (judgment, creativity, positive attitudes toward work, cooperativeness, flexibility, assumes responsibility, accepts advice and supervision, follows instruction).

(3) The preparation of about half of the graduates was rated as predominantly "excellent," predominantly "good" or a combination of "excellent" and "good." However 16 graduates (9 percent) received "unsatisfactory" ratings on at least one aspect of community college preparation.

(4) The range in mean ratings for the 18 items was small: C+ to B. The better ratings were generally for the personal attributes (except judgment and creativity) of graduates and for their punctuality and grooming. The lower ratings were generally for general occupational knowledge, the basic skills, judgment and creativity.

3. Employer's Priorities:

(1) Top priority in community college education was given to: (a) positive work attitudes and good work habits and (b) effective human relations.

(2) The single most important item was "positive work attitudes and good work habits" (37 percent).

(3) The single least important item was "broad education" (52 percent).

f. Employers' Comments

Employers expressed varied reactions: some were extremely complimentary of the graduates they had employed; others found serious shortcomings. Employers indicated concern regarding: (1) improvement in the basic skills; (2) development of positive work attitudes and effective human relations; (3) the value of on-the-job experiences; (4) opportunities for decision-making.

Some employers recognized the community colleges as a valuable source of potential employees. For some occupations, the community college is appreciated as the only local source of trained personnel.

2. Concluding Comments

The three purposes of this research effort have been realized: we have received the employers': (a) evaluations of the effectiveness of our programs in preparing graduates for work in terms of their skills, knowledge and attitudes; (b) suggestions for improving our educational programs; (c) priorities regarding skills, knowledge, and attitudes in preparing graduates for employment.

We were disappointed by the lower-than-expected rate of return for graduates furnishing employer identification. This may reflect uncertainty, if not insecurity, on the part of our graduates to have their preparation evaluated. One suggestion has been made for the next survey of employers should one be undertaken: send the graduate a copy of the questionnaire and a postpaid return envelope and ask him to give these to his employer. This has the advantaged of giving the graduate an opportunity to review the questionnaire. It may also be feasible to request the graduate to complete a similar questionnaire so that his evaluations and priorities can be compared to those of his employer. The approach would require: (a) the employer to furnish the name of his employee and the name of his company; (b) the graduate to notify the researcher of his employer's identification to enable follow-up efforts and a study of the representativeness of returns. This approach would be more expensive than the one we used, for many more questionnaires and envelopes would have to be prepared for mailing. If this approach is used, perhaps a stratified random sample of community college graduates might be contacted for assistance. This would reduce the cost to some degree.

The results of this survey should prove helpful to campus and state personnel involved in curriculum planning and evaluation and in student services. Since this statewide effort is the first of its kind for the community colleges, it is hoped that periodic surveys of employers will be undertaken in the future.

EMPLOYERS' SURVEY
U. H. COMMUNITY COLLEGES

No. _____ 1. Position of this employee: _____

Is this person still in your employ? _____1. Yes _____2. No

3. Compared with employees you have observed in equivalent positions without the benefit of a community college education but with similar years of experience, the preparation of this graduate is (check appropriate block):

Knowledge, Skills, Attitudes	0. Not Applicable	1. Unsatisfactory	2. Satisfactory	3. Good	4. Excellent
a. Job know-how and technical knowledge					
b. Application of technical skills and knowledge					
c. Use of tools, equipment, machines					
d. Mathematical skills					
e. Reading					
f. Writing					
g. Speaking					
h. Judgment; ability to decide, plan, organize					
i. Creativity; finds new/better ways of doing things					
j. Positive attitude toward work; commitment					
k. Cooperativeness; works with others					
l. Accepts advice and supervision					
m. Assumes responsibility					
n. Follows instructions					
o. Initiative; performs necessary work without being told					
p. Flexibility; adapts to new work assignments					
q. Good attendance and punctuality					

4a. Total number of employees in your company in the State of Hawaii:
_____1. Under 25 _____2. 25-100 _____3. 101-500 _____4. Over 500

4b. Estimated number of employees who are graduates of Hawaii's community colleges: _____

5. Based on your experience with community college graduates, what is your overall impression of the efforts of the community colleges in preparing students for employment?

_____0. Insufficient experience _____1. Poor _____2. Satisfactory _____3. Good
_____4. Excellent

6. Please indicate how important it is for the community college graduate to have each of the following before entering the world of work. (Check appropriate block)

Item	1. Not Important	2. Somewhat Important	3. Very Important	4. Extremely Important
a. basic skills (reading, writing, speaking, mathematics)				
b. specific technical skills of a particular occupation				
c. general knowledge of a particular occupation				
d. broad education				
e. positive work attitudes and good work habits				
g. effective human relations (communicates and works well with others				

7a. What is the single most important item above? (circle letter) a b c d e f

7b. What is single least important item above? (circle letter) a b c d e f

8. We're interested in your thinking about the community colleges in general. What are the colleges doing well? What needs strengthening? Please share your suggestions with us and feel free to continue on the reverse side.

University of Hawaii

Office of the State Director for Vocational Education

EMPLOYER SATISFACTION SURVEY
INTERVIEW SCHEDULE FOR LARGE FIRMS

In order to be in compliance with the most recent amendments to vocational education legislation, the Office of the State Director for Vocational Education is conducting a survey of business firms to determine their satisfaction with graduates of vocational education programs. Small to moderate size businesses are being surveyed by mail. Your firm may have also received a questionnaire as some large firms did emerge in the sample. However, it seems logical to treat and organize information from larger firms differently in order to obtain appropriate perspective. As I indicated in my telephone conversation, I would like to obtain your general perception of the adequacy of the training of new employees who have been the beneficiaries of publicly supported vocational education programs.

Given the size of your organization, you undoubtedly seek and employ persons with different types of training for different types of work. It is difficult to generalize about all of them. Over the years the "machinists", or "typists" may have proved to be of better quality than the "bookkeepers" and so forth. However, it would be an undue imposition on your time to ask you to consider each group or type of employee separately. So in the interest of time, but in order to obtain a sharper focus, I would like you to concentrate in your assessment on those types of workers who perform tasks most related to the basic service or product produced by your firm. Also, please concentrate on only those employees who received vocational education training within the last five years.

Feel free to elaborate on any answer you may choose to offer.

1. Name of Firm: _____

(CODE TYPE OF FIRM)

a.____agriculture, fisheries b.____construction c.____manufacturing

d.____transportation e.____wholesale trade f.____retail trade

g.____finance, insurance, real estate h.____service (e.g. tourist related, medical, educational, government) i.____other (please specify) _____

2. In which of the counties of Hawaii do you have offices and/or operating units?

a._____ Honolulu b._____ Hawaii c._____ Kauai d._____ Maui

3. Do you have employees who were enrolled in vocational education courses during their high school years?

a._____ yes b._____ no c._____ don't know

(If the answer is NO, proceed to question #12)

4. If so, what program area is most heavily represented in the prior training of your work force?

a.____agriculture b.____business c.____construction
d.____electrical/electronic e.____food service f.____health
g.____technical/graphic h.____mechanical i.____personal/public service
j.____other (please specify)_____

5. Please assess the adequacy of the employment preparation of these employees in the following areas?

	Good	Fair	Poor	No Opinion (DON'T READ)
5a. general academic training	___	___	___	___
5b. specific occupational skills training	___	___	___	___
5c. general occupational skills training	___	___	___	___
5d. other (please specify) _____	___	___	___	___

6. Please explain the reasons for your assessment.

_____
_____
_____
_____

7. Would you say that graduates of high school vocational education programs are:

a.____ superior to graduates without a vocational education background
b.____ somewhat better than graduates without a vocational education background
c.____ no better than graduates without a vocational education background
d.____ not as good as graduates without a vocational education background
e.____ no opinion (DON'T READ)

8. What are the most commendable things about vocational education as it is presently being implemented in the public schools?

_____
_____
_____

9. What are the least commendable aspects of vocational education as it is presently being implemented in public schools?

_____

_____

_____

10. I'm going to read you a series of characteristics or attributes which are frequently considered in the evaluation of an employee's performance. I'd like you to give me your impression of how DOE vocational education graduates as a group measure up with regards to these criteria. The rating scale is "1" to "5" with 1 representing a very poor rating and 5 a very high assessment.

		POOR				GOOD
10a.	punctuality	1	2	3	4	5
10b.	social skills	1	2	3	4	5
10c.	personal grooming	1	2	3	4	5
10d.	written communication skills	1	2	3	4	5
10e.	oral communication skills	1	2	3	4	5
10f.	safety consciousness	1	2	3	4	5
10g.	ability to assume responsibility	1	2	3	4	5
10h.	dependability	1	2	3	4	5
10i.	adaptability	1	2	3	4	5
10j.	problem solving ability	1	2	3	4	5
10k.	motivation	1	2	3	4	5

11. Please comment on any of the ratings if you wish. _____

_____

_____

_____

12. Do you have any employees who have taken vocational courses at a community college administered by the University of Hawaii?

a._____ yes b._____ no c._____ don't know

(If the answer is NO, go to item #21)

13. If so, what program area is most heavily represented in the prior training of your work force?

a._____agriculture b._____business c._____construction

d._____electrical/electronic e._____food service f._____health

g._____technical/graphic h._____mechanical i._____personal/public service

j._____other (please specify)_____

14. Please assess the adequacy of the employment preparation of your employees in the areas of vocational training?

	Good	Fair	Poor	No Opinion (DON'T READ)
14a. basic skills (reading, writing, computation)	____	____	____	____
14b. general academic training	____	____	____	____
14c. specific occupational skills training	____	____	____	____
14d. general occupational skills training	____	____	____	____

15. Relative to vocational education, as a whole, would you say the community colleges are doing:

a._____ a good job b._____ a fair job

c._____ a poor job d._____ no opinion (DON'T READ)

16. What are the most commendable things about vocational education as it is presently being implemented by the community college?

_____

_____

_____

17. What are the least commendable aspects of vocational education as it is presently being implemented by the community colleges?

_____

_____

_____

18. Would you say that graduates of community college programs are:

a._____ superior to employees without a community college vocational education background

b._____ somewhat better than employees without a community college vocational education background

c._____ no better than employees without a community college vocational education background

d._____ not as good as employees without a community college background

e._____ no opinion (DON'T READ)

19. I'm going to read you a series of characteristics or attributes which are frequently taken into consideration in the evaluation of an employee's performance. I'd like you to give me your impression of how the community colleges' vocational education graduates measure up with regards to these criteria. The rating scale is "1" to "5" with 1 indicating a very poor rating and 5 a very high assessment.

		POOR				GOOD
19a.	punctuality	1	2	3	4	5
19b.	social skills	1	2	3	4	5
19c.	personal grooming	1	2	3	4	5
19d.	written communication skills	1	2	3	4	5
19e.	oral communication skills	1	2	3	4	5
19f.	safety consciousness	1	2	3	4	5
19g.	ability to assume responsibility	1	2	3	4	5
19h.	dependability	1	2	3	4	5
19i.	adaptability	1	2	3	4	5
19j.	problem solving ability	1	2	3	4	5
19k.	motivation	1	2	3	4	5

20. Please comment on any of the ratings if you wish. _____

_____

_____

_____

21. Do you feel that students who enroll in some type of vocational education program make better employees than those who don't?

a._____ yes b._____ no c._____ no opinion

22. Do you feel that Department of Education graduates make good employees?

a._____ yes b._____ no c._____ no opinion

23. Do you feel that Community College graduates make good employees?

a._____ yes b._____ no c._____ no opinion

24. Additional comments: _____

_____

_____

_____

_____

MAHALO!

Office of the State Director
for Vocational Education

Hawaii Business
League

EMPLOYER SATISFACTION QUESTIONNAIRE WITH PUBLICLY SUPPORTED VOCATIONAL TRAINING PROGRAMS

DIRECTIONS: P.L. 94-482 requires that each state determine the level of satisfaction of private employers with government sponsored vocational education programs. The Hawaii Business League is also interested in this matter. We would appreciate your assistance in helping us collect the necessary information by completing this brief questionnaire and returning it immediately in the self-addressed, prepaid envelope provided. Consider only employees you have hired that have had formal training in the last 5 years. Mahalo!

1. Type of business:
   a. _____agriculture, fisheries
   b. _____construction
   c. _____manufacturing
   d. _____transportation
   e. _____wholesale trade
   f. _____retail trade
   g. _____finance, insurance, real estate
   h. _____service (e.g., tourist related, medical, educational, government)
   i. _____other (please specify) _____

2. City and County
   a. _____Honolulu b. _____Hawaii c. _____Kauai d. _____Maui

3. Number of persons presently employed. _____.

4. Do you have any employees who took vocational courses during their high school years?
   a. _____yes b. _____no c. _____don't know

5. If you have such employees, is the approximate number:
   a. _____5 or less
   b. _____more than 5, but less than 10
   c. _____more than 10, but less than 25
   d. _____25 or more
   e. _____non-applicable

6. In what areas were they trained? (Check as many as applicable)
   a. _____agriculture
   b. _____business
   c. _____construction
   d. _____electrical/electronic
   e. _____food service
   f. _____health
   g. _____technical/graphic
   h. _____mechanical
   i. _____personal/public service
   j. _____other (please specify) _____
   k. _____non-applicable

7. How would you assess the job done by the Department of Education in the following areas?

	Good	Fair	Poor	No Opinion
7a. broad educational background	_____	_____	_____	_____
7b. verbal skills	_____	_____	_____	_____
7c. specific work skills related to training program taken	_____	_____	_____	_____
7d. general work skills	_____	_____	_____	_____

8. Would you say that graduates of high school vocational education programs are:
   a. _____ superior to graduates without a vocational education background
   b. _____ somewhat better than graduates without a vocational education background
   c. _____ no better than graduates without a vocational education background
   d. _____ not as good as graduates without a vocational education background

9. Do you have any employees who took vocational courses at a community college administered by the University of Hawaii?
   a. _____yes b. _____no c. _____don't know

10. If you have such employees, approximately what percent of them:
   a. _____earned a degree or certificate
   b. _____attended a community college but didn't complete a program
   c. _____don't know

11. If you have such employees, is the approximate number:
   a. _____5 or less
   b. _____more than 5, but less than 10
   c. _____25 or more
   d. _____non-applicable

12. In what areas were they trained? (Check as many as applicable)

a.	_____agriculture	g.	_____technical
b.	_____business	h.	_____graphics
c.	_____construction	i.	_____mechanical
d.	_____electrical/electronics	j.	_____personal/public service
e.	_____food service	k.	_____other (please specify) _____
f.	_____health		

13. How would you assess the job done by the community colleges in the following areas?

	Good	Fair	Poor	No Opinion
13a. basic skills (e.g., reading, computation, writing)				
13b. broad educational background				
13c. verbal skills				
13d. specific work skills related to training program taken				
13e. general work skills				

14. Would you say that graduates of community college vocational programs are:
   a. _____ superior to employees without a community college vocational education background
   b. _____ somewhat better than employees without a community college vocational education background
   c. _____ no better than employees without a community college vocational education background
   c. _____ not as good as employees without a community college vocational education background

University of Hawaii

Office of the State Director for Vocational Education

EMPLOYER SATISFACTION SURVEY:
APPRENTICESHIP PROGRAMS

In order to be in compliance with recent amendments to federal law dealing with vocational education, the Office of the State Director for Vocational Education is attempting to assess employer satisfaction with vocational education programs. Assessments from both large and small businesses are being sought.

Occupational areas where the preservice training is conducted through an apprenticeship program are being studied separately. After conferring with several knowledgeable people in the trades, it was decided that an evaluation of the "related instruction" component of the apprenticeship program could best be obtained by seeking the views of Training Coordinators. This is the purpose of this interview.

1. Trade Organization: _____

2. In which of the counties of Hawaii do you have programs?

   a.____ Honolulu b.____ Hawaii c.____ Kauai d.____ Maui

3. Are all of your apprentices enrolled in "related instruction" programs sponsored by the community colleges?

   a.____ Yes b.____ No c.____ Don't know

4. If not everyone is involved in such programs, what percentage are?

   a.____ Over 90%

   b.____ Over 75% but less than 90%

   c.____ Over 50% but less than 75%

   d.____ Less than 50%

5. Do you feel that "related Instruction" significantly enhances the apprenticeship program?

   a.____ Yes b.____ No

6. If so, in what way? _____.

   _____

   _____

7. Relative to vocational education, as a whole, would you say the community colleges are doing?

   a.____ A good job b.____ A fair job

   c.____ A poor job d.____ No opinion

8. Relative to the "related instruction" component of apprenticeship programs, would you say the community colleges are doing:

   a.____ A good job b.____ A fair job

   c.____ A poor job d.____ No opinion

9. What are the most commendable things about the "related instruction" component of vocational education as it is presently being implemented by the community colleges?

   _____

   _____

   _____

10. What are the least commendable aspects of the "related instruction" component of vocational education as it is presently being implemented by the community colleges?

    _____

    _____

    _____

11. How would you rate the community college program with reference to the following:

    11a. orientation to the world of work . a.___Good b.___Fair c.___Poor d.___No opinion

    11b. meeting the needs of the disadvantaged a.___Good b.___Fair c.___Poor d.___No opinion

11c.	meeting the needs of the handicapped	a.___Good	b.___Fair	c.___Poor	d.___No opinion
11d.	overcoming sex stereotyping	a.___Good	b.___Fair	c.___Poor	d.___No opinion
11e.	career planning	a.___Good	b.___Fair	c.___Poor	d.___No opinion
11f.	meeting the needs of bilingual students	a.___Good	b.___Fair	c.___Poor	d.___No opinion

12. Please comment on any of the ratings if you wish._____

_____

_____

13. Do you feel that apprentices who are enrolled in programs with community college sponsored "related instruction" components become better trades and craftsmen than those who don't?

a.____ Yes b.____ No

14. Additional comments:_____

_____

_____

_____

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